

# Notice of Allowability

Application No.

10/675,881

Examiner

David Lazaro

Applicant(s)

TEJASWINI ET AL.

Art Unit

2155

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed 11/02/2007.
2. ☒ The allowed claim(s) is/are 1,4-9 and 12-24.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.


**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
SALEH NAJJAR  
SUPERVISORY PATENT EXAMINER

  
David Lazaro  
January 16, 2008

***Response to Amendment***

1. The drawings filed 11/02/2007 are accepted by the examiner.
2. The rejections of claims 8, 16 and 17 under 35 USC 101 are withdrawn.
3. The oath/declaration filed 11/02/2007 is accepted by the examiner.

**EXAMINER'S AMENDMENT**

4. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Dana LeMoine (40,062) on 01/10/2008.

The application has been amended as follows:

Please enter the attached amendment of claims 1, 9, 18 and 22 (attachment is 3 pages).

5. The following is an examiner's statement of reasons for allowance: The examiner's amendment focuses on limitations regarding the responsibilities of the upper and lower MAC layers in the claimed methods and apparatus directed towards performing access point association decisions/selection taking into consideration association history data. This amendment further emphasizes applicant's arguments

found on pages 7-8 of the remarks (11/02/2007) and the functionalities/interactions of the upper and lower MAC layers. Such limitations regarding the responsibilities of the upper and lower MAC layers (shown below) are not found in the prior art nor are they obvious in view of the prior art.

“ collecting data in a lower media access control (MAC) layer implemented in a wireless network interface, the data regarding a current association in a wireless network;

passing the data to an upper media access control (MAC) layer implemented in a host system coupled to the wireless network interface;

...

passing the association history data back to the lower media access control layer implemented in the wireless network interface in response to a request from the lower media access control layer for the association history data; and

performing an association decision at the lower media access control layer based at least in part on the association history data.” (as from claim 1, similar limitations in claim 18)

“ collecting data in a lower media access control (MAC) layer implemented in a wireless network interface, the data regarding a current association in a wireless network;

passing the data to an upper media access control (MAC) layer implemented in a host system coupled to the wireless network interface

...

accessing by the upper media access control layer the association history data for at least one access point in a wireless network;

selecting an access point at the upper media access control layer based at least in part on the association history data; and

passing information regarding the access point selected to the lower media access control layer implemented in the wireless network interface" (from claim 9, similar limitations in claim 22)

6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Pertinent Art***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

8. U.S. Patent 6,847,654 by Zegelin. January 25, 2005. Discloses splitting the MAC layer into a lower and upper MAC. However, there is no disclosure of the particularly functionalities of the lower and upper MAC as found in the claimed subject matter of the instant application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Lazaro whose telephone number is 571-272-3986. The examiner can normally be reached on 8:30-5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on 571-272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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January 16, 2008



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1. A method comprising:

collecting data in a lower media access control (MAC) layer implemented in a wireless network interface, the data regarding a current association in a wireless network;

passing the data to an upper media access control (MAC) layer implemented in a host system coupled to the wireless network interface;

storing the data as association history data in the host system for use in future association decisions;

passing the association history data back to the lower media access control layer implemented in the wireless network interface in response to a request from the lower media access control layer for the association history data; and

performing an association decision at the lower media access control layer based at least in part on the association history data.

9. A method comprising:

collecting data in a lower media access control (MAC) layer implemented in a wireless network interface, the data regarding a current association in a wireless network;

passing the data to an upper media access control (MAC) layer implemented in a host system coupled to the wireless network interface;

storing the data as association history data in the host system for use in future association decisions;

accessing by the upper media access control layer the association history data for at least one access point in a wireless network;

selecting an access point at the upper media access control layer based at least in part on the association history data; and

passing information regarding the access point selected to the lower media access control layer implemented in the wireless network interface.

18. A method comprising:

collecting historical association data at a lower media access control layer in a wireless network interface;

passing the historical association data to an upper media access control layer running in a software driver on a host system, ~~to allow the data to be save~~ and saving the data using resources of the host system;

accessing the historical association data through the upper media access control layer in response to a request for association data from the lower media access control layer; and

passing the historical association data to the lower media access control layer in the wireless network interface to facilitate an association decision.

22. An apparatus including a medium adapted to hold machine-accessible instructions that when accessed result in a machine performing:

collecting data in a lower media access control (MAC) layer implemented in a wireless network interface, the data regarding a current association in a wireless network;

passing the data to an upper media access control (MAC) layer implemented in a host system coupled to the wireless network interface;

storing the data as association history data in the host system for use in future association decisions;

accessing by the upper media access control layer the association history data for at least one access point in a wireless network;

selecting an access point at the upper media access control layer based at least in part on the association history data; and

passing information regarding the access point selected to the lower media access control layer implemented in the wireless network interface.

  
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